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MEMORANDUM

A Hypothesis on Soviet SALT Negotiating Objectives:
The SS-X-20, A Key to Equal Aggregates

The hypothesis of this paper is that the Soviets may be prepared to accept a SALT agreement calling for equal aggregates of intercontinental delivery vehicles at a level about 10 percent below the 2400 figure agreed to at Vladivostok--provided they are able to carry out their deployment program for the SS-X-20 IRBM.

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The Soviet's acceptance of an equal aggregate limit of 2400 intercontinental delivery vehicles at Vladivostok came as somewhat of a surprise, inasmuch as they had argued in SALT ONE for additional weapons to compensate for peripheral threats. SALT ONE allowed the Soviets to have 1607 ICBM and 950 modern SLBM launchers, providing that for every SLBM launcher above 740, the Soviets dismantled an older missile launcher. The US, in effect, was limited to 1054 ICBM and 656 SLBM launchers. Bombers were excluded from SALT ONE.

The composition of the ICBM force being deployed at the time of SALT ONE was:

1030	SS-11s	
308	SS-9s	
60	SS-13s	
190	SS-7s	} (older launchers)
19	SS-8s	
<u>1607</u>		

Comments and queries regarding this memorandum are welcome. They may be directed to Strategic Research, CIA,

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[illegible]

[REDACTED], the Soviets would consider themselves to have between 1028 and 1088 fixed strategic missiles targeted against the US, compared to 1054 US ICBMs. In addition, the Soviets had about 150 heavy (i.e., intercontinental-range) bombers, while the US had about 425. Considering all intercontinental delivery vehicles which were targeted or immediately available for use against the opponent's territory, the Soviets could have concluded that a rough equivalence existed under SALT ONE, as follows:

ICBMs	1054	1028-1088
SLBMs	656	950
Bombers	425	150
	<u>2135</u>	<u>2128-2188</u>

While additional Soviet ICBMs as well as some SLBMs and heavy bombers may be intended for use against peripheral areas rather than the US, the Soviets probably judge that some US SLEMs and bombers are intended for use against targets in locations other than the USSR. In any case, the flexibility of SLBMs and bombers would permit easy reallocation of these weapons to targets in the opponent's territory.

since these missiles could also be used against the US. Unless these ICBMs were released for an intercontinental mission and their peripheral attack role taken over by some other peripheral weapon system, however, the US would gain a quantitative advantage. And, indeed, there was just such a weapon system coming along--the SS-X-20 mobile IRBM.

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In [redacted] 1974, some three months before the Vladivostok meeting, the Soviets flight tested the SS-X-20 [redacted]

[redacted] that deployment of the [redacted] missile, believed to be the SS-X-20, was programmed as follows:

	<u>Regiments</u>	<u>Launchers</u>	<u>Total</u>
Set 1			
Proposed	31	--	1800
Amended	25	250	1250
Set 2			
Proposed	5	--	--
Amended	3	36	180

We are unsure of the meaning of the above breakdown, but the figures seem to indicate that at least 250 launchers will be deployed. Of the five missiles produced per launcher, we think three or four will be fielded with each launcher and that one or two will be used for spares. If so, it would appear that the SS-X-20 is intended to replace both the aging SS-4/SS-5 peripheral missile force and the SS-11s presently allocated to peripheral strike roles.

We have no direct evidence of how many peripheral targets the Soviets have selected for strategic attack. In the early 1970s, the Soviets had 10 SS-5s, 12 SS-4s, and possibly 190 SS-11s [redacted]

[redacted] The Soviets probably expect the number of targets in the Far East to grow as the Chinese continue to develop their nuclear threat, but initially they might rely on the refire capability of the SS-X-20 and deploy fewer launchers than might be required over the longer term.

[redacted] the Soviets in the early 1970s had as many as 180 SS-11s, 111 silo-based SS-4s and SS-5s, and 450 soft SS-4s and SS-5s. The number of strategic missile warheads that would have been aimed

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[redacted] ranged from 741 (with no refire capability) to 1041 (assuming that two missiles were available for refire from the soft launchers). The Soviets would require 247 SS-X-20 launchers to reach the low side of this spread in terms of the number of warheads able to be delivered [redacted] in a first salvo. To match the refire capability of the soft SS-4s and SS-5s, many of the SS-X-20 launchers would require two refire missiles. More SS-X-20 warheads might be needed to cover the same targets, [redacted]

Preparations for the initial deployment of the SS-X-20 appear consistent with the hypothesis that this system will assume the role of SS-4 MRBMs and of the SS-11 ICBMs which are targeted against peripheral areas. [redacted]

From the above discussion, one can hypothesize that:

- The Soviets, in effect, agreed in SALT ONE to an equal aggregate limit of about 2150 delivery vehicles on each side that could be allocated to intercontinental targets.
- The Soviets were willing to codify at Vladivostok the concept of an equal aggregate limit, because they expected SS-X-20s to assume the role of the SS-11s previously targeted against China and Western Europe [redacted]
- The Soviets would accept reductions in the aggregate limit on the order of ten percent below the 2400 figure, because that would provide them with the number of delivery vehicles allocated to intercontinental targeting which they had already implicitly accepted in SALT ONE.

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